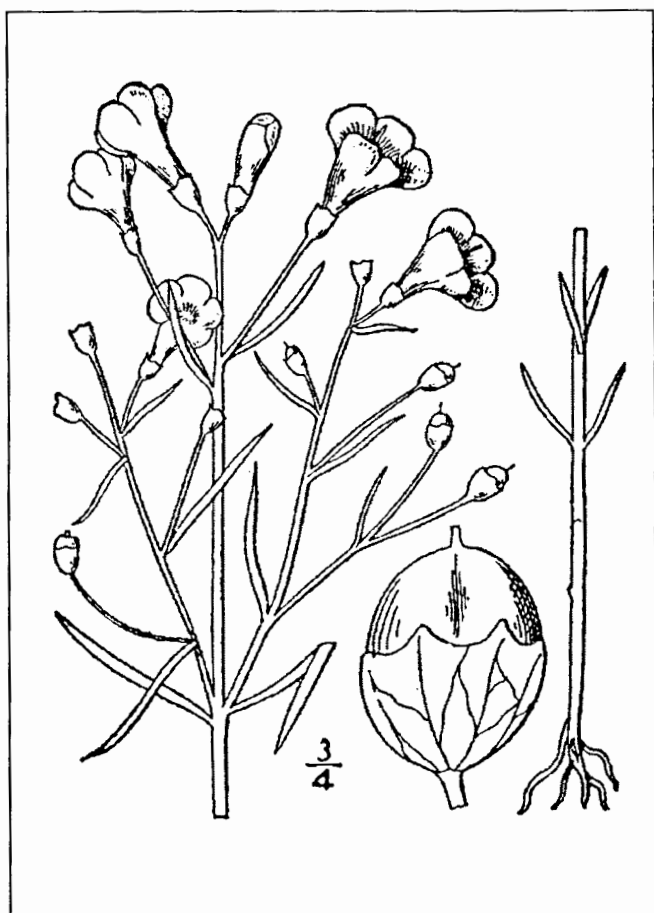


Holding Down the Fort... and Flora

By Bonnie Heidel

In a history as wild as the Wild West it represents, the Fort Laramie National Historic Site encapsulates Wyoming's history of successive Native Americans cultures, territorial explorations, trading, U.S. military-Indian Wars, pioneer trails, and later settlement. After statehood, in 1890 the Fort Laramie Military Reservation dissolved as a 35,000 acre reservation and was divided into homestead parcels. In 1938, the 214 acres in and around the fort site were made a national monument, and finally the Fort Laramie National Historic Site was designated by Congress in 1960. Currently, the National Park Service administers 832.85 acres at Fort Laramie National Historic Site (FOLA) and has law enforcement responsibility for 340 acres of nearby BLM tracts with shared history.



Agalinis tenuifolia adds brilliance to banks of the Laramie River in Fort Laramie National Historic Site, a species at its western limits in eastern Wyoming.

Illustration from: Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 3: 301. Courtesy of [Kentucky Native Plant Society](#). Scanned by [Omnitek Inc.](#) [Usage Guidelines](#)

Each layer of FOLA's early history is intimately linked to its natural history. Thus, in 1993, the management plan of FOLA identified as a goal to "Re-establish and promote native plants and animals that contribute to and create the Park's historic scene..." (USDI 1993). Overarching nationwide National Park Service management guidelines later identified the need to document existing flora and fauna as a key step in meeting this and all other management mandates (USDI 2001). Floristic inventory was also suggested as one of ten management issues or questions that would advance FOLA vegetation management within the larger mandate (Jones and Tebben 2002).

Prior to this time, FOLA had had more than a head-start at floristic inventory – it had a veritable *magnum opus*. Floristic inventory was conducted at FOLA by B.E. Nelson as part of extensive floristic inventory in southeastern Wyoming (Hartman and Nelson 1995). The known FOLA flora was compiled by Walter Fertig (Fertig 2001) to produce a checklist of 177 species. This checklist was compared with the known Goshen County flora as represented by the Atlas of the Flora of Wyoming (Hartman and Nelson 1998). The preliminary comparative work indicated that there could be twice as many species at FOLA as had been previously documented.

In 2003, the National Park Service asked Wyoming Natural Diversity Database to census rare species and check the completeness of floristic documentation. There were five Wyoming species of concern among the reported flora (Fertig 2000) of 177 species. As good fortune would have it, two of Goshen County's most recent settlers were Robert and Jane Dorn. Robert Dorn contributed greatly in collecting "missing" plants at FOLA, including those with early and late phenologies, and that represent the full array of FOLA habitats, families, and parcels of land.

The FOLA flora, originally reported at 177 species, is now known to include 376 species (Heidel 2004), with a large wetland flora befitting its place at the confluence of the Laramie and North Platte rivers. We did NOT find the walnut tree that once grew in Fort Laramie bottoms, but the favorable 2004 growing season did foster flowering of *Nasturtium microphyllum*, an introduced water-cress that was collected by Dorn as a new addition to the Wyoming flora (see the report on new additions to the flora).

Seven Wyoming species of concern are now known, and six are river-dwellers. Channel changes in the meandering Laramie River within the past 50 years may have helped maintain or increase successional habitats for the six rare riparian species. In addition, the known Goshen County flora grew by 23 new county flora additions vouchered in this project (679 species were previously reported for the county; see "Floristic Diversity of Wyoming Counties", by Walter Fertig, in the previous *Castilleja* issue).

The National Park Service faces challenges in presenting each historical facet within its management mandates at Fort Laramie. Fortunately, there is a rich flora to fortify the natural history, ... and a key role for the flora in the future of the Fort.

Table 1. Wyoming plant species of concern at Fort Laramie National Historic Site

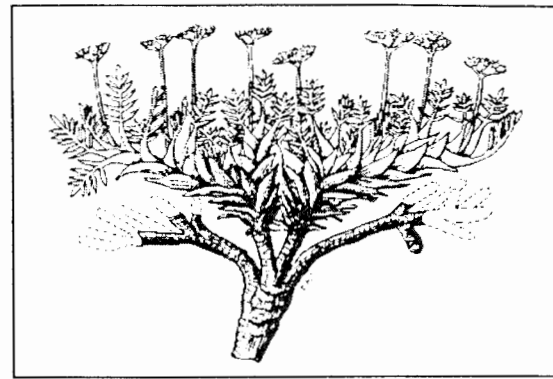
Scientific Name	Common Name	Global rank/ State rank
<i>Agalinus tenuifolia</i> var. <i>parviflora</i>	Slender False-foxglove	G5T4/S1
<i>Cyperus acuminatus</i>	Sharp-point flatsedge	G5/S1
<i>Cyperus bipartitus</i>	Shining flatsedge	G5/S1
<i>Euphorbia hexagona</i>	Six-angle spurge	G5/S1
<i>Lipocarpa drummondii</i>	Dwarf bulrush	G4G5/S1
<i>Lobelia siphilitica</i>	Great blue lobelia	G5/S1
<i>Sorghastrum nutans</i>	Indian grass	G5/S1

Acknowledgements

This article reflects the work of many, including Robert Dorn, B.E. Nelson, Walter Fertig and all who are associated with the Rocky Mountain Herbarium and Fort Laramie National Historic Site.

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Shoshonea pulvinata. Illustration by Erwin Evert. From: Systematic Botany 7:427-275, 1982.

Botanist's Bookshelf

Alpine Plants of North America - An Encyclopedia of Mountain Flowers From the Rockies to Alaska by Graham Nicholls. 2002. Illustrated. 344 pp. Timber Press: Portland, OR.

Reviewed by Jean Daly

Alpine Plants of North America - an Encyclopedia of Mountain Flowers From the Rockies to Alaska has about 650 species in 54 genera of mostly alpine plants, many of which are found in Wyoming. Although Nicholls intended the book basically for the gardener, traveler and alpine house grower with a discussion of propagation and cultivation information, he also provides a wealth of information for the alpine enthusiast and the botanist who has an interest in the alpine plants.

The main portion of the book is an alphabetical listing by species of alpine plants, under what conditions and where they grow natively, and in addition he includes a check list of common alpine plants arranged by state. There are 495 color photographs of alpine plants in their native habitats as well as in rock gardens and containers. The author, Graham Nicholls, who took many of the photographs himself, is a respected British nurseryman who specializes in growing alpine plants of North America and in visiting them in their native habitats.

He has pictures of many of the alpine plants in the Big Horn Mountains and around Wyoming and Montana and mentions specifically where the pictures were taken including Hunt Mountain in the Big Horns, and the Pryor Mountains of Montana. He goes into some detail about where the plants can be found and their native habitat devoting more than a page to *Shoshonea pulvinata* a new monotypic genus that Erwin Evert discovered in Wyoming and published the details about in 1986. The book includes some plants that are not in the strictest sense "alpine" species, but share many of the characteristics of their alpine relatives.

This is a beautiful and inspiring book and would make a welcome addition to your library on the native plants whether you are a gardener or not.